

## ABSTRACT OF THE DISCLOSURE

An apparatus for compensating for optical loss includes a plurality of optical fibers joined  
5 to form a plurality of output ports and a fiber junction. A signal amplification device is  
positioned between the fiber junction and each of the plurality of output ports to communicate  
with the plurality of optical fibers. An optical transmission signal entering the input port of the  
apparatus is equally divided at the fiber junction and guided by separate optical fibers toward  
each of the output ports. Each signal amplification device communicates with the fibers to  
10 amplify the optical signals as they pass between the fiber junction and the output ports to  
compensate for the coupling and other losses experienced by the optical signals due at least in  
part to the use of the apparatus itself.